Pre pumping Tests

# WATER LEVEL RECORD SHEET

Page 1

PUMPED WELL Canyon of Nine Mile #1

Measuring Point _____

_____ ft. above land surface.

Elevation of Measuring Point _____ ft above mean sea level.

Well Location: T._____, R._____, Sec._____

Well Coordinates: _____ ft N. _____ ft E.

STATIC WATER LEVEL: "2662.1" / GEOKON No offset

Flow Meter ~~Surface~~ - Datalogger

| DATE / TIME AFTER PUMPING STARTED (MINUTES) | HOUR | DEPTH TO WATER (FEET) Flow Meter (Gallons) HELD WET DEPTH | PUMPING RATE (GPM) | | GALLONS/SEC (GPM) | REMARKS (INCLUDE METHOD OF MEASUREMENT) BARO/PUMP T°CB/T°CP |
|---|---|---|---|---|---|---|
| 9-9-87 | 07:30 | 00000000 | — | | — | tape recorder @ 002 |
| | 07:40 | | | | | 11.7/54.8 |
| | 07:48 | | | | | Pretest baseline; Δ CRIB to 2min temp. readings / 1min GEOKON readings No offsets. |
| | 07:52 | | | | | 287.2/2660.0 12.7/56.1 |
| | 08:02 | | | | | 287.1/2659.4 13.6/60.5 |
| | | | | | | BAT VOLT = 11.08 AMBL = 7.9°C |
| | | | | | | SIGNATURE = 41887 |
| | 08:15 | | | | | Problems with starting Pretest; RAD & LG to town. |
| | 08:30 | | | | | 287.2/2660.0 12.6/60.4 |
| | 08:50 | | | | | Set CRIB to normal baseline 10 min & 30 min readings |
| | | | | | | signature = 62916 VOR |
| | 09:00 | | | | | 287.2/2659.8 12.9/57.8 |
| | 0930 | | | | | 287.1/2659.5 13.3/59.6 |
| | 0949 | | | | | SET CRIB to 1min & 5min readings *B=41887 VOR |
| | 0950 | | | | | MOVE BARM TO CONDUIT UNDER SCALE |
| | 0953 | | | | 4/00:15.4 (13.7) | Begin Pretest FLOW METER RUNNING BACKWARDS |
| | ~0954 | | | | | PUMP OFF; GASKET ON FLOW METER BLEW; CRIB WET; |
| | ~0955 | | | | | FACTORY INSTALLED TOP OF FLOW METER BACKWARDS |
| | | | | | | PUT CRIB TO SLEEP *B=36 ATTEMPT TO DRY IT OUT |
| | 1045 | | | | | WAKE CRIB *B: 41887 VOR |
| | 1048 | | | | | 287.0/2662.1 14.3/61.1 |
| | 1050 | 00000052 | | | 10/00:12.7 (46) | reinstall flow meter |
| | 1100 | | | | 60/1:23 (43) | 287.0 PUMP ON @ 1055 |
| | 1105 | | | | 42/1:00 (42) | |
| | 1112 | | | | 40/1:00 (40) | |
| | 1117 | | | | 32/1:00 (32) | ↓ Q @ 11:16 |
| | 1120 | | | | 25/1:00 (25) | ↓ Q @ 11:19 |
| | 1124 | | | | 22/1:00 (22) | 287.0/2749.9 14.7/62.3 |
| | 1125 | | | | | ↑ Q |

## WATER LEVEL RECORD SHEET

Page _____

## PUMPED WELL _____

Measuring Point _____

_____ ft. above land surface.

Elevation of Measuring Point _____ ft
above mean sea level.

Well Location: T._____, R._____, Sec._____

Well Coordinates: _____ ft N.

_____ ft E.

STATIC WATER LEVEL: _____

| DATE / TIME AFTER PUMPING STARTED (MINUTES) | HOUR | ~~DEPTH TO WATER~~ (FEET) FLOW METER (GALLONS) ~~HELD~~ ~~WEP~~ ~~DEPTH~~ | PUMPING RATE (GPM) | FLOW METER GALLONS/MIN (GPM) | DATALOGGER BARO/PUMP T°C B/T°C P | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 | 1129 | | | 28/1:00 (28) | 287.0/2743.7 14.7/63.1 | |
| | 1132 | | | 31/1:00 (31) | | |
| | 1140 | | | 61/2:00 (30.5) | | |
| | 1141 | | | | 287.0/2763.0 14.6/62.7 | 100.9 feet drawdown |
| | 1150 | | | | 287.0/2772.0 | 110.0 feet drawdown |
| | 1202 | | | 10/00:28.37 (25.7) | 287.0/2762.0 14.8/63.8 | 99.9 " " |
| | 1204 | | | | | PUMP OFF |
| | | | | | | tape ree. 005 |

## WATER LEVEL RECORD SHEET

Page 1

PUMPED
~~OBSERVATION~~ WELL Canyon Mine Well

~~Measuring Point~~ Airline tube and GEOKON pressure transducer both at 2962.7 ft. ~~above~~ below land surface.

Well Location: T. ____ N. ____, Sec. ____

Well Coordinates: ____ ft N. ____ ft E.

Elevation of Measuring Point ____ ft above mean sea level.

STATIC WATER LEVEL: 2561.9 AIRLINE

COPY

PRETEST

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (PSI) HELD / (FEET) WET [X(-2.31)+2962.7] DEPTH | DRAWDOWN (feet) | | | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 4-30-87 | 0910 | 174.0 / 2560.8 | — | | | |
| | | | | | | PRETEST |
| 9-9-87 | 0730 | 173.5 / 2561.9 | | | | tank pressure 3000 psi |
| | 0750 | 173.8 / 2561.2 | | | | SWAP METERS - ACCURACY TO TENTHS OF DECIMAL |
| | 0810 | 173.8 / 2561.2 | | | | |
| | 0830 | 173.9 / 2561.0 | | | | BASELINE |
| | 0900 | 173.9 / 2561.0 | | | | 401.7 feet of submergence |
| | 0930 | 174.0 / 2560.8 | | | | |
| | 0950 | 174.0 / 2560.8 | | | | START PRETEST |
| | 0951 | 170.8 / 2568.2 | | | | |
| | 0953 | 169.2 / 2571.9 | | | | |
| | 0954 | | | | | PUMP OFF; GASKET ON FLOWMETER BLEW; CRIB WET; FACTORY INSTALLED TOP OF FLOWMETER BACKWARDS |
| | | | | | | |
| | 1051 | 173.5 / 2561.9 | | | | |
| | 1055 | — | | | | PUMP ON |
| 1 | 1056 | 171.0 | | | | |
| 2 | 1057 | 168.3 | | | | |
| 3 | 1058 | | | | | |
| 4 | 1059 | 167.9 | | | | |
| 5 | 1100 | 167.3 | | | | |
| 8 | 1103 | 164.7 | | | | |
| 9 | 1104 | 161.9 | | | | |
| 11 | 1106 | 159.1 | | | | |
| 12 | 1107 | 156.0 | | | | |
| 14 | 1109 | 150.2 | | | | |
| 15 | 1110 | 147.2 | | | | |
| 18 | 1113 | 140.1 | | | | |
| 20 | 1115 | — | | | | |
| 21 | 1116 | | | | | +B |
| 24 | 1119 | 134.2 | | | | +Q |

**WATER LEVEL RECORD SHEET** Page 2

## OBSERVATION WELL CANYON MINE WELL

Measuring Point AIRLINE TUBE AND GEOKON PRESSURE TRANSDUCER BOTH AT 2962.7 ft. ~~above~~ BELOW land surface.

Well Location: T.____, R.____, Sec.____

Well Coordinates: ____ ft N.

Elevation of Measuring Point ____ ft above mean sea level.

____ ft E.

STATIC WATER LEVEL: ____ PRETEST

| DATE / TIME AFTER PUMPING STARTED (MINUTES) | HOUR | DEPTH TO WATER (FEET) PSI ~~HELD~~ / [X(-2.31)+2962.7] WET ~~DEPTH~~ | DRAWDOWN (feet) | | | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 25 | 1120 | 134.3 | | | | |
| 27 | 1122 | 135.0 | | | | |
| 30 | 1125 | 134.9 | | | | |
| 32 | 1127 | 136.9 | | | | evacuated line |
| 34 | 1129 | 138.8 | | | | ( " ) |
| 36 | 1131 | 140.8 | | | | " |
| 38 | 1133 | 140.2 | | | | |
| 40 | 1135 | 137.2 | | | | |
| 44 | 1139 | 133.9 | | | | |
| 46 | 1141 | 132.8 / 2655.9 | 94.0 | | | |
| 55 | 1150 | 128.6 / 2665.6 | 103.7 | | | @1153 ↓ Q |
| | 1156 | 131.2 | | | | |
| | 1202 | 131.8 / 2658.2 | 96.3 | | | |
| | 1204 | | | | | PUMP OFF |
| | | | | END METER READ: | 2,219 | |

# WATER LEVEL RECORD SHEET

Page 1

STEP TEST

PUMPING

~~OBSERVATION~~ WELL Canyon Mine Well

COPY

Measuring Point _____

_____ ft. above land surface.

Elevation of Measuring Point _____ ft above mean sea level.

Well Location: T. _____, R. _____, Sec. _____

Well Coordinates: _____ ft N.

_____ ft E.

STATIC WATER LEVEL: 172.5/2,564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) PSI ~~NEED~~ [X(-2.31)-2962.7] WET / DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) | Pres. Trans. Pumping Well (Drawdown/t) | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 | 13:47 | 173.3 / | | | | 287.06/2664.2 |
| | 13:50 | 173.9 / | | | | 287.06/2664.2 |
| | 13:51 | | | | | 287.07/2664.0 |
| | | | | BEGIN METER READ | | 2,219 gallons |
| | 13:54 | 173.9 / | | | | 287.02/2663.4 |
| | 13:55 | 173.1 / | | | | 287.03/2663.5 |
| | | | | | | 287.02/2663.3 |
| | 13:56 | | | | | offsets 287.02/2663.0 |
| | 13:58 | 173.0 / | | | | *B = 39092 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | FLOWMETER BLEW 1 minute into test. |
| | | | | | | reset datalogger time 05 hrs ahead. |
| | | | | | | test to start again at ~~14~~ 14:30 (15:00 datalogger time) set back in baseline |
| | 1428 | 172.5 / 2564.2 | | | | leave offsets @ setting 13:56 at 10 minutes before test |
| | | | | | | offset @ .21289 (PUMP) |
| ## 1 | ~~1430~~ 1431 | 170.5 / 2568.85 | 4.65 ✓ | | | tank pressure 2100 psi |
| 2 | 1432 | 169.8 / 2570.46 | 6.26 ✓ | | | |
| 3 | 1433 | 167.9 / 2574.85 | 10.65 ✓ | | | |
| 4 | 1434 | 167.5 / 2575.78 | 11.58 ✓ | | | |
| 5 | 1435 | 168.0 / 2574.62 | 10.42 ✓ | | | |
| 6 | 1436 | 167.5 / 2575.78 | 11.58 ✓ | | | |
| 7 | 1437 | 168.2 / 2574.16 | 9.96 ✓ | | | |
| 8 | 1438 | 167.0 / 2576.93 | 12.73 ✓ | 10/00:31.14 (~20) | | |
| 9 | 1439 | 168.0 / 2574.62 | 10.42 ✓ | | | |
| 10 | 1440 | 168.3 / 2573.93 | 9.73 ✓ | | | |
| 11 | 1441 | 168.9 / 2572.57 | 8.34 ✓ | | | |
| 12 | 1442 | 168.0 / 2574.62 | 10.42 ✓ | 30/00:91.58 (19.65) | | |

33.nc

## WATER LEVEL RECORD SHEET



Pumping
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2,564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) ~~DSI~~ WET [x(-2.31)+2962.7] DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) | Pres-Trans Pump (DRAWDOWN/PC) | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 13 | 1443 | 167.4 / 2576.01 | 11.81 | | | |
| 14 | 1444 | 167.0 / 2576.93 | 12.73 | | | |
| 15 | 1445 | 167.0 / 2576.93 | 12.73 | | | |
| 16 | 1446 | 166.9 / 2577.16 | 12.94 | | 11.16/65.8 | |
| 17 | 1447 | 167.1 / 2576.70 | 12.50 | | | |
| 18 | 1448 | 167.3 / 2576.24 | 12.04 | 10/00:30.36 (19.61) | | |
| 19 | 1449 | 167.0 / 2576.93 | 12.73 | | | |
| 20 | 1450 | 166.8 / 2577.4 | 13.2 | | | |
| 21 | 1451 | 166.5 / 2578.09 | 13.89 | | | Q↑ |
| 22 | 1452 | 166.8 / 2,577.4 | 13.2 | | 11.71/ – | |
| 23 | 1453 | 167.0 / 2,576.9 | 12.7 | | | |
| 24 | 1454 | 166.5 / 2578.09 | 13.89 | 50/02:31.11 (19.85) | | |
| 25 | 1455 | 165.9 / 2579.47 | 15.27 | | | Q↑ |
| 26 | 1456 | 164.8 / 2582.0 | 17.8 | | 20.72/ – | |
| 27 | 1457 | 162.5 / 2,587.3 | 23.1 | 30/01:30.34 (19.92) | 24.08/ – | |
| 28 | 1458 | 161.2 / 2,590.3 | 26.1 | | | |
| 29 | 1459 | 160.0 / 2,593.1 | 28.9 | | | |
| 30 | 1500 | 159.0 / 2,595.4 | 31.2 | | | |
| 32 | 1502 | 158.0 / 2,597.7 | 33.5 | | | |
| 34 | 1504 | ~~157.8~~ 155.8 / 2,602.8 | 38.6 | | 38.3/65.3 | |
| 36 | 1506 | 154.9 / 2,604.9 | 40.7 | 5/00:14.24 (21.1) ? | | |
| 38 | 1508 | 154.0 / 2,607.0 | 42.8 | | 44.47/ – | |
| 40 | 1510 | 153.6 / 2,607.9 | 43.7 | 30/01:31.29 (19.7) | ≠ | |
| 42 | 1512 | 152.9 / 2,609.5 | 45.3 | | 45.78/ – | Q↑ |
| 44 | 1514 | 153.2 / 2,608.8 | 44.6 | | | |
| 46 | 1516 | 153.0 / 2,609.3 | 45.1 | 30/01:31.19 (19.74) | | |
| 48 | 1518 | 151.5 / 2,612.7 | 48.5 | | 49.11/ – | @ 15:19 Q↑ |
| 50 | 1520 | 151.4 / 2,613.0 | 48.8 | | | |
| 52 | 1522 | 151.2 / 2,613.4 | 49.2 | | | |
| 54 | 1524 | 151.9 / 2,611.8 | 47.6 | 30/01:33.26 (19.30) | | |

# WATER LEVEL RECORD SHEET

PUMPING
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____

_____ ft. above land surface.

Elevation of Measuring Point _____ ft above mean sea level.

Well Location: T._____, R._____, Sec._____

Well Coordinates: _____ ft N.

_____ ft E.

STATIC WATER LEVEL: 2,564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) | HOUR | DEPTH TO WATER (FEET) PSI ~~JUMED~~ ~~WET~~ DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) gal / MIN | Pres, Trans PUMP DD PUMP / °C | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 56 | 1526 | 151.2 / 2,613.4 | 49.6 ~ | | | @15:25 Q↑ |
| 58 | 1528 | 150.9 / 2,614.1 | 49.9 ~ | 10/00:28.38 (21.14) | | |
| 60 | 1530 | 150.0 / 2,616.2 | 52.0 ~ | | 54.26/- | 3,439 totalizer @ 15:29 Qavg STEP1 = 20.33 |
| 61 | 1531 | 149.2 / 2618.05 | 53.85 | 10/ 123.52 (26.64) | | STEP 2 Q↑ |
| 62 | 1532 | 148.2 / 2,620.4 | 56.2 ~ | | 59.60/- | |
| 63 | 1533 | 147.6 / 2,621.74 | 57.57 | 20/00:46.94 (25.52) | | Q↑ |
| 64 | 1534 | 148.1 / 2,620.6 | 56.4 ~ | | | |
| 65 | 1535 | 149.1 / 2618.28 | 54.08 | | | |
| 66 | 1536 | 147.0 / 2,623.1 | 58.9 ~ | | | |
| 67 | 1537 | 145.1 / 2,627.5 | 63.3 | | 69.58/- | |
| 68 | 1538 | 144.1 / 2,629.8 | 65.6 ~ | | | |
| 69 | 1539 | 144.0 / 2630.04 | 65.86 | | | |
| 70 | 1540 | 142.3 / 2633.99 | 69.79 ~ | 30/01:06.86 (26.92) | | |
| 71 | 1541 | 141.9 / 2,634.9 | 70.7 | | | |
| 72 | 1542 | 141.2 / 2636.53 | 72.33 ~ | | | |
| 73 | 1543 | 141.1 / 2634.76 | 72.56 | | | |
| 74 | 1544 | 141.0 / 2636.99 | 72.79 ~ | | | |
| 75 | 1545 | 140.8 / 2,637.45 | 73.4 | | 77.5/63 | |
| 76 | 1546 | 141.0 / 2636.99 | 72.79 ~ | 30/01:06.92 (26.90) | | Q steady |
| 77 | 1547 | 140.4 / 2,638.4 | 74.2 | | 78.65/- | |
| 78 | 1548 | 140.0 / 2639.30 | 75.10 ~ | | | |
| 79 | 1549 | 139.9 / 2,639.5 | 75.3 | | 79.74/- | |
| 80 | 1550 | 140.0 / 2639.30 | 75.10 ~ | | | |
| 81 | 1551 | 139.6 / 2,640.2 | 76.0 | | 80.60/- | |
| 82 | 1552 | 139.5 / 2640.46 | 76.24 ~ | 30/01:07.73 (26.58) | | |
| 83 | 1553 | 140.0 / 2639.30 | 75.10 | | | Q↑ |
| 84 | 1554 | 139.4 / 2,640.7 | 76.5 ~ | | | |
| 85 | 1555 | 139.0 / 2641.61 | 77.41 | | | |
| 86 | 1556 | 138.0 / 2,643.9 | 79.7 ~ | | 85.2/- | |
| 87 | 1557 | 137.3 / 2645.54 | 81.34 | 30/01:01.87 (29.09) | | |

## WATER LEVEL RECORD SHEET

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PUMPING
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ ft. above land surface. Well Coordinates: _____ ft N.

Elevation of Measuring Point _____ ft above mean sea level. _____ ft E.

STATIC WATER LEVEL: 2,564.2 *6

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) PSI ~~HEAD~~ ~~WSE~~ DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) gallons / MIN | Pres. Trans PUMP ③ Drawdown / ⑳ | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 88 | 1558 | 137.1 / 2646.00 | 81.80 | | | |
| 89 | 1559 | 137.0 / 2,646.2 | 82.0 | | | |
| 90 | 1600 | 136.8 / 2646.69 | 82.49 | | | |
| 92 | 1602 | 135.8 / 264.60 | 84.80 | 30/01:03.25 (28.42) | | |
| 94 | 1604 | 135.1 / 2,650.6 | 86.4 | | 90.89/62.1 | |
| 96 | 1606 | 135.1 / 2,650.6 | 86.4 | | | |
| 98 | 1608 | 134.5 / 2,652.01 | 87.8 | | 92.09/— | |
| 100 | 1610 | 134.6 / 265).77 | 87.57 | | | |
| 102 | 1612 | 134.1 / 2,652.93 | 88.73 | 30/1:02:51 (28.80) | | |
| 104 | 1614 | 134.7 / 2,651.54 | 87.34 | | | |
| 106 | 1616 | 134.6 / 2,651.77 | 87.57 | | | |
| 108 | 1618 | 134.3 / 2,652.47 | 88.27 | 49 | | |
| 110 | 1620 | 134.2 / 2652.70 | 88.50 | 30/1:02:54 (28.80) | | |
| 112 | 1622 | 134.3 / 2652.47 | 88.27 | | 95.98/ | |
| 114 | 1624 | 134.2 / 2652.70 | 88.50 | | | |
| 116 | 1626 | 133.8 / 2653.62 | 89.42 | | | |
| 118 | 1628 | 133.9 / 2653.39 | 89.19 | | | |
| 120 | 1630 | 133.9 / 2,653.39 | 89.19 | 30/1104:00 (27.95) | 97.68/63.01 | |
| 125 | 1635 | 133.9 / 2,653. 39 | 89.19 | 100/3:31:00 (28.47) | | |
| 130 | 1640 | 132.9 / 2655.70 | 91.50 | | | |
| 135 | 1645 | 132.3 / 2657.09 | 92.89 | | | |
| 140 | 1650 | 133.4 / 2,654.55 | 90.35 | 50/1:03:58 (28.31) | 99.42/65.73 | |
| 145 | 1655 | 131.8 / 2658.24 | 94.04 | | | |
| 150 | 1700 | 131.3 / 2,659.40 | 95.2 | | 100.19/64.05 | |
| 155 | 1705 | 131.1 / 2659.86 | 95.66 | 100/03:31:38 (28.38) | | |
| 160 | 1710 | 131.0 / 2660.09 | 95.89 | | 10.14/63.07 | |
| 165 | 1715 | 131.3 / 2659.40 | 95.2 | | | |
| 170 | 1720 | 132.6 / 2658.39 | 92.19 | 50/1:44:56 (28.69) | | |
| 175 | 1725 | 132.1 / 2657.55 | 93.35 | | | |
| 180 | 1730 | 132.1 / 2657.55 | 93.35 | | | 6,808 gal @ 17:29 Avg STEP 2 = 28.08 gpm |

# WATER LEVEL RECORD SHEET

PUMPING
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

#6

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) PSI ~~WSP~~ DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) GALLONS/MIN | Pres. Trans PUMP (20) DRAWDOWN/% | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 181 | 1731 | 131.3 | | | | STEP 3 BEGIN CONSTANT YIELD TEST |
| 182 | 1732 | 130.0 | | 30/51:20 (35.16) | | |
| 183 | 1733 | 129.8 | | | | |
| 184 | 1734 | 128.1 / ~~2536.75~~ 2666.79 | 102.59 | 20/34.33/ (34.95) | | |
| 185 | 1735 | 126.5 / 2670.49 | 106.29 | | | Switched Tanks |
| 186 | 1736 | 125.7 | | | | |
| 187 | 1737 | 125.4 | | 30/51.73 (34.80) | | |
| 188 | 1738 | 124.9 | | | | |
| 189 | 1739 | 124.7 | | | | |
| 190 | 1740 | 123.7 / 2676.95 | 112.75 | ~~42.95~~ | 123.99/ | |
| 191 | 1741 | 123.2 | | | | |
| 192 | 1742 | 122.7 | | | | |
| 193 | 1743 | 122.1 | | 100/2:52:79 (34.72) | | |
| 194 | 1744 | 121.3 | | | | |
| 195 | 1745 | 120.0 / 2685.5 | 121.30 | | | |
| 196 | 1746 | 119.5 | | | | |
| 197 | 1747 | 119.2 | | | | |
| A.A. 198 | 1748 | 120.8 | | | | A.A. = adjust air |
| 199 | 1749 | 119.6 | | | | |
| 200 | 1750 | 119.4 / 2686.89 | 122.69 | | 134.69/63.79 | |
| 201 | 1751 | 119.3 | | 50/1:26:61 (34.64) | ~~60/4~~ | |
| 202 | 1752 | 119.1 | | | | |
| 203 | 1753 | 118.5 | | | | |
| 204 | 1754 | 118.2 | | | | |
| 205 | 1755 | 117.5 / 2691.28 | 127.08 | | | |
| 206 | 1756 | 117.0 / 2692.43 | 128.23 | | 138.59/63.31 | |
| 207 | 1757 | 116.0 | | | | |
| 208 | 1758 | 116.4 | | | | T=25.3°C pH=7.57 K=440 |
| 209 | 1759 | 115.5 | | | | |
| 210 | 1800 | 116.0 / 2694.74 | 130.54 | | | |

## WATER LEVEL RECORD SHEET

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PUMPING
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ ft. above land surface. Well Coordinates: _____ ft N.

Elevation of Measuring Point _____ ft _____ ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) PSI / FEET DEPTH | DRAWDOWN (feet) | DISCHARGE (gpm) gallons/min | Pres. Trans. PUMP DRAWDOWN / t | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 212 | 1802 | 115.5 / 2,695.90 | 131.70 | 100/02:53.13 (34.66) | | |
| 214 | 1804 | 114.2 | | | | |
| 216 | 1806 | 114.2 / 2,698.90 | 134.70 | | 143.45/63.01 | Bat volt CR10 = 11.10 volts<br>Panel CR10 = 24.17°C |
| 218 | 1808 | 113.9 | | | | |
| 220 | 1810 | 113.5 / 2,700.52 | 136.32 | | | |
| 222 | 1812 | 113.0 / 2,701.67 | 137.47 ✓ | | 145.74/62.74 | |
| 224 | 1814 | 113.1 | | | | |
| 226 | 1816 | 113.3 | | | | DSW left |
| 228 | 1818 | 113.3 | | | | |
| 230 | 1820 | 112.8 / 2,702.13 | 137.93 ✓ | | | |
| 232 | 1822 | 112.8 / 2,702.13 | 137.93 | | | |
| 234 | 1824 | 112.2 | | | | |
| 236 | 1826 | 112.1 | | 100/2:57.46 (34.79) | | |
| A.A. 238 | 1828 | 111.9 | | | | |
| 240 | 1830 | 111.8 / 2704.44 | 140.24 ✓ | | 150.42/63.66 | |
| 245 | 1835 | 111.3 | | | | |
| 250 | 1840 | 110.9 / 2706.52 | 142.32 ✓ | 200/5:45.80 (34.70) | | |
| 255 | 1845 | 110.3 | | | | |
| 260 | 1850 | 110.2 / 2708.14 | 143.94 ✓ | | | |
| 265 | 1855 | 110.0 | | | | 2. Casebolt hearing will be back ≈ 2230 |
| 270 | 1900 | 109.6 / 2709.52 | 145.32 ✓ | | 155.60/62.57 | 5.08/5.18 |
| 275 | 1905 | 109.4 | | | | T=25.1°C pH=7.53 K=440 |
| 280 | 1910 | 109.3 / 2710.22 | 146.02 ✓ | | | |
| A.A. 285 | 1915 | 108.7 | | 200/5:44.06 (34.88) | | |
| 290 | 1920 | 108.6 / 2711.83 | 147.63 ✓ | | | |
| 295 | 1925 | 108.6 | | | | |
| A.A. 300 | 1930 | 107.6 / 2714.14 | 149.94 ✓ | 200/5:43.43 (34.93) | 159.46/62.98 | 4.62/3.86 |
| 305 | 1935 | 107.4 | | | | |
| 310 | 1940 | 107.4 / 2714.61 | 150.41 ✓ | | | |
| A.A. 315 | 1945 | 106.7 | | | | |

WATER LEVEL RECORD SHEET RECOVERY Page 1

~~OBSERVATION~~ PUMPING WELL Canyon Mine Well

COPY

Measuring Point _____ Well Location: T._____ R._____, Sec._____

_____ ft. above land surface. Well Coordinates: _____ ft N.

Elevation of Measuring Point _____ ft above mean sea level. STATIC WATER LEVEL: 2564.2 (172.5 PSI) _____ ft E.

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | (t') | HOUR | DEPTH TO WATER (FEET) PSI / ~~FEET~~ DEPTH | ~~Pres. Trans.~~ Pump Head Residual Drawdown | Pres. Trans. Pump Head Resid. Drawdown / °C | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|---|
| 1621 9-10-87 | 1 | 1731 | 103.2 2724.31 | 160.11 | | 1621 | |
| 1622 | 2 | 1732 | 108.1 2712.99 | 148.79 | ~~139~~ | 811 | |
| 1623 | 3 | 1733 | 116.3 2694.05 | 129.85 | 138.82/- | 541 | |
| 1624 | 4 | 1734 | 119.8 2685.96 | 121.76 ✓ | | 406 | |
| 1625 | 5 | 1735 | 124.9 2674.18 | 109.98 ✓ | 112.97/- ✓ | 325 | |
| 1626 | 6 | 1736 | 132.0 2657.78 | 93.58 ✓ | | 271 | |
| 1627 | 7 | 1737 | 134.7 2651.54 | 87.34 ✓ | 91.65/- ✓ | 232.4 | |
| 1628 | 8 | 1738 | 140.1 2639.07 | 74.87 ✓ | | 203.5 | |
| 1629 | 9 | 1739 | 142.3 2634.15 | 69.95 ✓ | 74.57/- | 181 | |
| 1630 | 10 | 1740 | 145.6 2626.36 | 62.16 ✓ | | 163 | |
| 1631 | 11 | 1741 | 148.1 2620.59 | 56.39 ✓ | 60.99/- ✓ | 148.3 | |
| 1632 | 12 | 1742 | 151.2 2613.43 | 49.23 ✓ | | 136 | |
| 1633 | 13 | 1743 | 153.2 2608.81 | 44.61 ✓ | 50.59/- ✓ | 125.6 | |
| 1634 | 14 | 1744 | ~~158~~ 156.0? 2602.34 | 38.14 ✓ | | 116.7 | |
| 1635 | 15 | 1745 | 156.3 2601.65 | 37.45 ✓ | | 109 | |
| 1636 | 16 | 1746 | 158.4? 2596.80 | 32.60 ✓ | | 102.2 | |
| 1637 | 17 | 1747 | ~~161.~~ 159.2 2594.95 | 30.75 ✓ | 37.41/- ✓ | 96.3 | |
| 1638 | 18 | 1748 | 159.7 2593.79 | 29.59 | | 91 | |
| 1639 | 19 | 1749 | 160.3 2592.41 | 28.21 ✓ | 30.95/- ✓ | 86.3 | |
| 1640 | 20 | 1750 | 161.2 2590.33 | 26.13 ✓ | | 82 | |
| 1641 | 21 | 1751 | 161.8 2588.94 | 24.74 ✓ | - /78.81 | 78.1 | |
| ~~1642~~ 1642 | 22 | 1752 | 162.8 2586.63 | 22.43 ✓ | | 74.6 | |
| 1643 | 23 | 1753 | 163.1 2585.94 | 21.74 ✓ | 23.85/79.90 ✓ | 71.4 | |
| 1644 | 24 | 1754 | 164.1 2583.63 | 19.43 ✓ | | 68.5 | |
| 1645 | 25 | 1755 | 164.3 2583.17 | 18.97 ✓ | 21.13/78.87 ✓ | 65.8 | |
| 1646 | 26 | 1756 | 164.6 2582.47 | 18.27 ✓ | | 63.31 | |
| 1647 | 27 | 1757 | 165.1 2581.32 | 17.12 ✓ | | 61.00 | |
| 1648 | 28 | 1758 | 165.3 2580.86 | 16.66 ✓ | | 58.86 | |
| 1649 | 29 | 1759 | missed | | | 56.86 | |
| 1650 | 30 | 1800 | 166.2 2578.78 | 14.58 ✓ | 16.44/- ✓ | 55.00 | |

**WATER LEVEL RECORD SHEET** RECOVERY Page 2

PUMPING
~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (t) (MINUTES) (t') | | HOUR | DEPTH TO WATER (FEET) PSI / WET / DEPTH | | Residual Drawdown (feet) | Pres. Trans. Pumphead / Resid. Drawdown / % | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|---|---|
| 1652 | 32 | 1802 | 166.3 | 2578.55 | 14.35 ✓ | | 51.62 | |
| 1654 | 34 | 1804 | 167.0 | 2576.93 | 12.73 ✓ | 14.43/78.8 ✓ | 48.65 | |
| 1656 | 36 | 1806 | 167.2 | 2576.47 | 12.27 ✓ | | 46.00 | |
| 1658 | 38 | 1808 | 167.3 | 2576.24 | 12.04 ✓ | 12.34/78.83 ✓ | 43.63 | |
| 1660 | 40 | 1810 | 167.7 | 2575.31 | 11.11 ✓ | | 41.50 | |
| 1662 | 42 | 1812 | 168.1 | 2574.39 | 10.19 ✓ | 10.49/78.82 ✓ | 39.57 | |
| 1664 | 44 | 1814 | 168.4 | 2573.70 | 9.50 ✓ | | 37.82 | |
| 1666 | 46 | 1816 | 168.6 | 2573.23 | 9.03 ✓ | 9.88/78.83 ✓ | 36.22 | |
| 1668 | 48 | 1818 | 168.7 | 2573.00 | 8.80 ✓ | | 34.75 | |
| 1670 | 50 | 1820 | 169.0 | 2572.31 | 8.11 ✓ | 9.95/78.82 ✓ | 33.40 | |
| 1672 | 52 | 1822 | 169.4 | 2571.39 | 7.19 ✓ | | 32.15 | |
| 1674 | 54 | 1824 | 169.4 | 2571.39 | 7.19 ✓ | 9.89/78.71 ✓ | 31.00 | |
| 1676 | 56 | 1826 | 168.8 | 2572.77 | 8.57 ✓ | | 29.93 | |
| 1678 | 58 | 1828 | 168.8 | 2572.77 | 8.57 ✓ | 9.79/78.84 | 28.93 | |
| ✓ 1680 | 60 | 1830 | 169.2 | 2571.85 | 7.65 ✓ | | 28.00 | |
| 1685 | 65 | 1835 | 168.7 | 2573.00 | 8.80 ✓ | | 25.92 | |
| 1690 | 70 | 1840 | 168.9 | 2572.54 | 8.34 ✓ | 9.60/78.06 ✓ | 24.14 | Dan left |
| 1695 | 75 | 1845 | 168.9 | 257.54 | 8.34 ✓ | | 22.60 | Larry Casebolt left |
| 1700 | 80 | 1850 | 169.1 | 2572.08 | ~~8.34~~ 7.88 ✓ | | 21.25 | |
| 1705 | 85 | 1855 | 169.1 | 2572.08 | ~~8.34~~ 7.88 ✓ | | 20.06 | |
| 1710 | 90 | 1900 | 169.1 | 2572.08 | 7.88 ✓ | 9.29/78.91 ✓ | 19.00 | 11.15VDC |
| 1715 | 95 | 1905 | 168.9 | 2572.54 | 8.34 ✓ | | 18.05 | |
| 1720 | 100 | 1910 | 169.1 | 2572.08 | 7.88 ✓ | 9.04/78.74 ✓ | 17.20 | |
| 1725 | 105 | 1915 | 169.0 | 2572.31 | 8.11 ✓ | | 16.43 | |
| 1730 | 110 | 1920 | 168.9 | 2572.54 | 8.34 ✓ | | 15.73 | |
| 1735 | 115 | 1925 | 168.9 | 2572.54 | 8.34 ✓ | | 15.09 | |
| 1740 | 120 | 1930 | 168.8 | 2572.77 | 8.57 ✓ | 8.91/75.02 ✓ | 14.50 | |
| 1745 | 125 | 1935 | 169.0 | 2572.31 | 8.11 ✓ | | 13.96 | |
| 1750 | 130 | 1940 | 169.0 | 2572.31 | 8.11 ✓ | 9.20/71.57 ✓ | 13.46 | Pick up water truck |
| 1755 | 135 | 1945 | 168.8 | 2572.77 | 8.57 ✓ | | 13.00 | |

**WATER LEVEL RECORD SHEET** RECOVERY Page 3

PUMPING
~~OBSERVATION~~ WELL CANYON MINE WELL

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.,

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| (t) DATE / TIME AFTER PUMPING STARTED (MINUTES) (t') | HOUR | DEPTH TO WATER (FEET) PSI ~~HEAD~~ ~~WATER~~ DEPTH | RESIDUAL DRAWDOWN (Feet) | PRESS. TRANS. Pumping Head Res'd. DD / oc | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 1760 9-10-87 140 | 1950 | 1689 ~~2570.23~~ 2572.34 | ~~6.03~~ 8.34 ✓ | 9.01 / 71.33 ✓ | 12.57 | |
| 1765 145 | 1955 | 168.7 2573.00 | 8.80 ✓ | | 12.17 | |
| 1770 150 | 2000 | 168.6 2573.23 | 9.03 ✓ | 8.90 / 70.43 ✓ | 11.80 | |
| 1775 155 | 2005 | 168.6 ~~2573.00~~ 2573.23 | ~~8.80~~ 9.03 | | 11.45 | |
| 1780 160 | 2010 | 168.9 2572.54 | 8.34 ✓ | 9.16 / 65.39 ✓ | 11.12 | |
| 1785 165 | 2015 | 168.7 2573.00 | 8.80 | | 10.82 | |
| 1790 170 | 2020 | 169.0 2572.31 | 8.11 ✓ | 8.32 / 63.74 ✓ | 10.53 | |
| 1795 175 | 2025 | 169.0 2572.31 | 8.11 | | 10.26 | |
| 1800 180 | 2030 | 169.6 2570.92 | 6.72 ✓ | 7.00 / 63.06 ✓ | 10.00 | |
| 1810 190 | 2040 | 169.6 2570.92 | 6.72 ✓ | 6.02 / 64.07 ✓ | 9.53 | |
| 1820 200 | 2050 ~~2100~~ | 170.0 2570.00 | 5.80 ✓ | 5.25 / 65.42 ✓ | 9.10 | 11.09 VDC |
| 1830 210 | 2100 | 170.3 2569.31 | 5.11 ✓ | 5.07 / 63.53 ✓ | 8.71 | |
| 1840 220 | 2110 | 170.7 2568.38 | 4.18 ✓ | 4.80 / 62.92 ✓ | 8.36 | |
| 1850 230 | 2120 | 170.5 2568.84 | 4.64 ✓ | 4.52 / 62.63 ✓ | 8.04 | |
| 1860 240 | 2130 | 170.4 2569.08 | 4.88 ✓ | 3.97 / 65.21 ✓ | 7.75 | |
| 1870 250 | 2140 | 170.9 2567.92 | 3.72 ✓ | 4.10 / 63.81 ✓ | 7.48 | Took photos of air gauge set-up (35 mm) |
| 1880 260 | 2150 | 170.8 2568.15 | 3.95 ✓ | 3.90 / 62.96 ✓ | 7.23 | |
| 1890 270 | 2200 | 170.6 2568.61 | 4.41 ✓ | 3.79 / 62.70 ✓ | 7.00 | |
| 1900 280 | 2210 | 170.8 2568.15 | 3.95 ✓ | 3.26 / 65.86 ✓ | 6.79 | |
| 1910 290 | 2220 | 170.4 2569.08 | 4.88 ✓ | 3.35 / 64.13 ✓ | 6.59 | |
| 1920 300 | 2230 | 170.8 2568.15 | 3.95 ✓ | 3.35 / 63.26 ✓ | 6.40 | |
| 1930 310 | 2240 | 170.5 2568.84 | 4.64 ✓ | 3.31 / 62.77 ✓ | 6.23 | |
| 1940 320 | 2250 | 170.9 2567.92 | 3.72 ✓ | 3.21 / 62.62 ✓ | 6.06 | |
| 1950 330 | 2300 | 170.8 2568.15 | 3.95 ✓ | 3.09 / 62.54 ✓ | 5.91 | 11.06 VDC |
| 1960 340 | 2310 | 170.5 2568.84 | 4.64 ✓ | 3.00 / 62.51 ✓ | 5.76 | |
| 1970 350 | 2320 | 170.8 2568.15 | 3.95 | 2.93 / 62.49 ✓ | 5.63 | |
| 1980 360 | 2330 | 170.9 2567.92 | 3.72 ✓ | 2.84 / 62.51 ✓ | 5.50 | |
| 1990 370 | 2340 | 171.0 2567.69 | 3.49 ✓ | 2.77 / 62.44 ✓ | 5.38 | |
| 2000 380 | 2350 | 171.0 2567.69 | 3.49 | 2.70 / 62.46 ✓ | 5.26 | |
| 2010 9-11-87 390 | 2400 / 0000 | 170.9 2567.92 | 3.72 ✓ | 2.62 / 62.47 ✓ | 5.15 | |

WATER LEVEL RECORD SHEET RECOVERY Page 4

PUMPING
~~OBSERVATION~~ WELL CANYON MINE WELL

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.,

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (t) (MINUTES) (t') | HOUR | DEPTH TO WATER (FEET) PSI ~~MEED~~ WET DEPTH | RESIDUAL DRAWDOWN (Feet) | PRESS. TRANS. PUMPING HEAD Resid. DD/oc | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 2020 9-11-87 400 | 0010 | 171.0 2567.69 | 3.49 ✓ | 2.57/62.46 ✓ | 5.05 | |
| 2030 410 | 0020 | 171.0 2567.69 | 3.49 ✓ | 2.46/62.48 ✓ | 4.95 | |
| 2040 420 | 0030 | 171.1 2567.46 | 3.26 ✓ | 2.41/62.40 ✓ | 4.86 | |
| 2050 430 | 0040 | 171.3 2567.00 | 2.80 ✓ | 2.35/62.22 ✓ | 4.77 | 11.05 VDC |
| 2060 440 | 0050 | 171.4 2566.77 | 2.57 | 2.28/62.33 | 4.68 | |
| 2070 450 | 0100 | 171.4 2566.77 | 2.57 ✓ | 2.20/62.41 ✓ | 4.60 | |
| 2080 460 | 0110 | 171.5 2566.53 | 2.34 | 2.15/62.46 ✓ | 4.52 | |
| 2090 470 | 0120 | 171.5 2566.53 | 2.34 ✓ | 2.07/62.47 ✓ | 4.45 | |
| 2100 480 | 0130 ~~0140~~ | 171.6 2566.30 | 2.10 | 2.04/62.13 | 4.38 | |
| 2110 490 | 0140 ~~0150~~ | 171.6 2566.30 | 2.10 ✓ | 1.97/62.26 ✓ | 4.31 | |
| 2130 510 | 0200 | 171.6 2566.30 | 2.10 ✓ | 1.57/64.16 ✓ | 4.18 | |
| 2150 530 | 0220 | 171.7 2566.07 | 1.87 ✓ | 1.64/62.73 ✓ | 4.06 | 11.03 VDC |
| 2170 550 | 0240 | 171.7 2566.07 | 1.87 ✓ | 1.57/62.47 ✓ | 3.95 | |
| 2190 570 | 0300 | 171.7 2566.07 | 1.87 ✓ | 1.53/62.40 ✓ | 3.84 | |
| 2210 590 | 0320 | 171.8 2565.84 | 1.64 ✓ | 1.41/62.34 ✓ | 3.75 | |
| 2230 610 | 0340 | 171.8 2565.84 | 1.64 ✓ | 1.30/62.44 ✓ | 3.66 | |
| 2250 630 | 0400 | 171.9 2565.61 | 1.41 ✓ | 1.38/60.77 ✓ | 3.57 | |
| 2270 650 | 0420 | 172.0 2565.38 | 1.18 | 1.50/59.07 ✓ | 3.49 | 11.02 VDC |
| 2290 670 | 0440 | 172.0 2565.38 | 1.18 ✓ | 1.46/58.51 ✓ | 3.42 | |
| 2310 690 | 0500 | 172.0 2565.38 | 1.18 ✓ | | 3.35 | DSW |
| 2330 710 | 0520 | 172.1 2565.15 | 0.95 ✓ | 1.00/60.58 ✓ | 3.28 | |
| 2350 730 | 0540 | 172.1 2565.15 | 0.95 | 0.54/63.38 ✓ | 3.22 | |
| 2370 750 | 0600 | 172.0 2565.38 | 1.18 ✓ | 0.66/61.37 ✓ | 3.16 | 11.04 VDC |
| 2390 770 | 0620 | 172.1 2565.15 | 0.95 ✓ | 0.99/58.63 ✓ | 3.10 | |
| 2410 790 | 0640 | 172.0 2565.38 | 1.18 | 0.93/58.08 ✓ | 3.05 | |
| 2430 810 | 0700 | 172.0 2565.38 | 1.18 ✓ | 0.78/59.79 ✓ | 3.00 | tape rec. 024 |
| 2450 830 | 0720 | 172.0 2565.38 | 1.18 | missed | 2.95 | |
| 2470 850 | 0740 | 172.0 2565.38 | 1.18 ✓ | missed | 2.91 | L. Casebolt arrives relinquish water samples |
| 2490 870 | 0800 | 172.05 2565.26 | 1.06 | 0.20/61.86 ✓ | 2.86 | |
| 2510 890 | 0820 | 172.10 2565.15 | 0.95 ✓ | 0.30/60.31 ✓ | 2.82 | L. Casebolt leaves |

# WATER LEVEL RECORD SHEET

Page 5

PUMPING ~~OBSERVATION~~ WELL Canyon Mine Well RECOVERY

Measuring Point _____

_____ ft. above land surface.

Elevation of Measuring Point _____ ft above mean sea level.

Well Location: T._____, R._____, Sec._____

Well Coordinates: _____ ft N., _____ ft E.

STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (t) (MINUTES) (t') | HOUR | DEPTH TO WATER (FEET) PSI / DEPTH | Residual / Drawdown (feet) | Pres. Trans. Pumping Head Resid. DD/t't' | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 2530 9-11-87 910 | 0840 | ~~170.3~~ 172.3 / ~~2569.31~~ 2564.69 | 0.49 | 0.11/61.56 | 2.78 | |
| 2550 930 | 0900 | 172.3 / 2564.69 | 0.49 ✓ | 0.01/61.60 ✓ | 2.74 | 11.05 VDC |
| 2570 950 | 0920 | 172.6 / 2563.99 | -0.21 | -0.25/63.61 | 2.71 | |
| 2590 970 | 0940 | 172.8 / 2563.53 | -0.67 ✓ | -0.21/62.44 ✓ | 2.67 | |
| 2610 990 | 1000 | 173.0 / 2563.07 | -0.13 | -0.18/62.22 | 2.64 | nitrogen tank pressure 1,700 |
| 2630 1010 | 1020 | 172.5 / 2564.2 | 0.00 ✓ | -0.22/62.17 ✓ | 2.60 | |
| 2650 1030 | 1040 | 172.6 / 2563.99 | -0.21 | -0.27/— | 2.57 | |
| 2670 1050 | 1100 | 172.8 / 2563.53 | -0.67 ✓ | -0.28/61.98 ✓ | 2.54 | BECOMING CLOUDY, BREEZY WINDS SOUTH-SOUTH WEST |
| 2690 1070 | 1120 | 172.7 / 2563.76 | -0.44 | -0.33/61.97 | 2.51 | |
| 2710 1090 | 1140 | 172.6 / 2563.99 | -0.21 | -0.40/62.17 | 2.49 | |
| 2730 1110 | 1200 | 172.5 / 2564.2 | 0.00 ✓ | -0.44/62.21 ✓ | 2.46 | Barom: 0.23 11.07 VDC |
| 2750 1130 | 1220 | 172.4 / 2564.46 | 0.26 | -0.44/61.98 | 2.43 | |
| 2770 1150 | 1240 | 172.6 / 2563.99 | -0.21 | -0.50/62.08 | 2.41 | |
| 2790 1170 | 1300 | 172.7 / 2563.76 | -0.44 ✓ | -0.79/64.00 ✓ | 2.38 | Barom: 0.22 |
| 2810 1190 | 1320 | 172.7 / 2563.76 | -0.44 | -0.64/62.62 | 2.36 | |
| 2830 1210 | 1340 | 172.8 / 2563.53 | -0.67 | -0.63/62.28 | 2.34 | |
| 2850 1230 | 1400 | 172.8 / 2563.53 | -0.67 | -0.66/62.24 | 2.32 | |
| 2870 1250 | 1420 | 172.8 / 2563.53 | -0.67 ✓ | -0.67/62.21 ✓ | 2.30 | |
| 2890 1270 | 1440 | 172.9 / 2563.30 | -0.90 | -0.71/62.19 | 2.28 | |
| 2910 1290 | 1500 | 172.9 / 2563.30 | -0.90 | -0.75/62.17 | 2.26 | |
| 2930 1310 | 1520 | 173.0 / 2563.07 | -1.13 ✓ | -0.75/— ✓ | 2.24 | |
| 2950 1330 | 1540 | 173.0 / 2563.07 | -1.13 | -0.80/62.80 | ~~2.30~~ 2.22 | |
| 2970 1350 | 1600 | 173.0 / 2563.07 | -1.13 | -0.84/62.10 ✓ | 2.20 | 11.09 VDC |
| 2990 1310 | 1620 | 173.05 / 2562.95 | -1.25 | -1.08/63.44 | 2.18 | |
| 3010 1390 | 1640 | 173.0 / 2563.07 | -1.13 | -1.24/64.95 | 2.17 | |
| 3030 1410 | 1700 | 174.1 / 2560.53 | -3.67 ✓ | -2.70/75.76 ✓ | 2.15 | |
| 3050 1430 | 1720 | 173.9 / 2560.99 | -3.21 | -1.70/67.78 | 2.13 | 11.10 VDC |
| 3070 1450 | 1740 | 174.0 / 2560.76 | -3.44 | -1.17/63.44 | 2.12 | |
| 3090 1470 | 1800 | 174.0 / 2560.76 | -3.44 | -1.29/64.02 | 2.10 | |
| 3110 1490 | 1820 | 173.9 / 2560.99 | -3.21 | -1.12/62.51 | 2.09 | |

**WATER LEVEL RECORD SHEET** Page 6

PUMPING ~~OBSERVATION~~ WELL Canyon Mine Well RECOVERY

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.,

Elevation of Measuring Point _____ft above mean sea level. _____ft E.

STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | (t') | HOUR | DEPTH TO WATER (FEET) PGI ~~TAPED~~ WET DEPTH | | Residual Drawdown (Ft) | Pres. Trans. Pump Head Resid. DD/% | t/t' | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|---|---|
| 3130 | 9-11-87 1510 | 1840 | 173.5 | 2561.92 | -2.29 | -1.38/64.35 | 2.09 | |
| 3150 | 1530 | 1900 | 173.9 | 2560.99 | -3.21 | -1.58/65.56 | 2.06 | |
| 3170 | 1550 | 1920 | 173.9 | 2560.99 | ~~-7.87~~ -3.21 | -1.81/67.15 | 2.05 | |
| 3190 | 1570 | 1940 | 173.6 | 2561.68 | -2.52 | -1.42/63.91 | 2.03 | 15.25°C for barometer |
| 3210 | 1590 | 2000 | 173.7 | 2561.45 | -2.75 | -1.75/66.26 | 2.02 | 15.40°C " " |
| 3230 | 1610 | 2020 | 173.7 | 2561.45 | -2.75 | -1.71/65.71 | 2.01 | 15.33°C " " |
| 3240 | 1620 | 2030 | 173.6 | 2561.68 | -2.52 | -1.49/63.97 | 2.00 | 15.01°C " " |
| | | | | | | | | |
| | | | | | | | | |
| | | 2032 | Disconnecting thermistor wires (green & white) in order to check resistance readings | | | | | |
| | | | · VWPT | Resistance (ohms) | | | | |
| | | | Barometric | 4000 Ω | | | | |
| | | | Pump | 205 kΩ | | | | |

1

# WATER LEVEL RECORD SHEET

Page 7

Pumping ~~OBSERVATION~~ WELL Canyon Mine Well

M[illegible]uring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR | DEPTH TO WATER (FEET) PSI ~~WELD~~ / ~~FEET~~ / DEPTH | DRAWDOWN (Ft.) | DISCHARGE (GPM) gallons/min. | Press. Trans. Pump Drawdown/°C | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-9-87 320 | 1950 | 106.4 / 2716.92 | 152.72 | | | |
| 325 | 1955 | 106.5 | | | | |
| A.A. 330 | 2000 | 106.2 / 2,717.38 | 153.18 | | 162.84/62.61 | |
| A.A. 335 | 2005 | 105.8 | | | | 11.08 Datalogger Batt. 24.24°C Panel Temp |
| 340 | 2010 | 106.0 / 2717.84 | 153.64 | | | |
| 345 | 2015 | 106.2 | | | | |
| A.A. 350 | 2020 | 105.4 / 2719.23 | 155.03 | | | T=24.7°C pH=7.53 K=440 |
| 355 | 2025 | 105.4 | | 320/9:08.31 (35.02) | | |
| 360 | 2030 | 105.4 / 2719.23 | 155.03 | | 164.84/66.03 | |
| A.A 370 ~~365~~ | 2040 | 104.7 / 2720.84 | 156.64 | | | |
| 380 | 2050 | 104.6 / 2721.07 | 156.87 | | | |
| Samples Taken 390 | 2100 | 104.3 / 2721.77 | 157.57 | | 167.30/63.00 | 11.06 VDC / 21.7°C |
| A.A. 400 | 2110 | 104.3 / 2721.77 | 157.57 | 250/7:06.61 (35.16) | | T=24.5°C pH=7.40 K=440 |
| A.A. 410 | 2120 | 103.8 / 2722.92 | 158.72 | | | |
| A.A. 420 | 2130 | 103.8 / 2722.92 | 158.72 | | 169.09/62.74 | |
| A.A. 430 | 2140 | 103.6 / 2723.38 | 159.18 | | | |
| * 440 | 2150 | 103.7 / 2723.15 | 158.95 | 410/11:40.72 (35.11) | | |
| A.A. 450 | 2200 | 103.3 / 2724.08 | 159.88 ~~158.88~~ | | 170.61/62.74 | 11.05 VDC / 18.90°C |
| 460 | 2210 | 103.2 / 2724.31 | 160.11 | | | T=25.0°C pH=7.37 K=440 |
| A.A. 470 | 2220 | 103.1 / 2724.54 | 160.34 | | | |
| A.A. 480 | 2230 | 102.6 / 2725.69 | 161.49 | 150/4:16.39 (35.10) | 172.15/60.62 | 17,282 gal. @ 2229 |
| A.A. 490 | 2240 | 102.6 / 2725.69 | 161.49 | | | |
| A.A. 500 | 2250 | 102.6 / 2725.69 | 161.49 | | | |
| 510 | 2300 | 102.4 / 2726.16 | 161.96 | | 173.51/58.68 | 11.05 VDC / 16.58°C |
| A.A. 520 | 2310 | 101.4 / 2728.47 | 164.27 | 200/5:40.87 (35.20) | | T=24.3°C pH=7.33 K=450 |
| 530 | 2320 | 101.3 | | | | |
| 540 | 2330 | 101.2 / 2728.93 | 164.73 | | 174.78/58.27 | |
| A.A. 550 | 2340 | 100.8 | | | | |
| 560 | 2350 | 101.1 / 2729.16 | 164.96 | 350/9:58.31 (35.10) | | 20,443 gal @ 2359 |
| A.A. 9-10-87 570 | 2400 / 0000 | 100.5 / 2730.55 | 166.35 | | 175.85/58.16 | 11.04 VDC / 14.86°C |

## WATER LEVEL RECORD SHEET

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PUMPING
~~OBSERVATION~~ WELL CANYON MINE WELL

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.
above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) t | HOUR | DEPTH TO WATER (FEET) PSI ~~HEAD~~ / ~~FEET~~ DEPTH | DRAWDOWN (Feet) | DISCHARGE gallons/min. (GPM) | PRES, TRANS, PUMP DRAWDOWN / °C | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|
| 9-10-87 580 | 0010 | 100.5 / 2730.55 | 166.35 ✓ | | | T=24.70°C pH=7.59 K=440 |
| A.A. 590 | 0020 | 100.3 | | 200/5:41.98 (35.09) | | |
| A.A. 600 | 0030 | 100.2 / 2731.24 | 167.04 | | 175.86/58.92 | Turned |
| A.A. 610 | 0040 | 100.9 | | | | |
| A.A. 620 | 0050 | 100.6 / 2730.31 | 166.11 ✓ | | | |
| A.A. 630 | 0100 | 100.2 / 2731.24 | 167.04 | | 176.26/58.31 | 11.05 VDC 13.75°C L. Cosebolt left-back @ 063 |
| A.A. 640 | 0110 | 100.4 / 2730.78 | 166.58 ✓ | 250/7:08.50 (35.01) | | T=25.0°C pH=7.63 K=440 |
| A.A. 650 | 0120 | 100.3 | | | | |
| A.A. 660 | 0130 | 100.0 / 2731.70 | 167.50 | | 176.83/58.18 | |
| A.A. 670 | 0140 | 100.0 | | 200/5:43.73 (34.91) | | top off fuel tank |
| A.A. 690 | 0200 | 100.0 / 2731.70 | 167.50 ✓ | | | DSW inspect CR10 VOK tape rec. 014 |
| A.A. 710 | 0220 | 99.9 / 2731.93 | 167.73 ✓ | 200/05:42.19 (35.07) | 178.08/58.08 | T=24.0°C pH=7.56 K=430 |
| A.A. 730 | 0240 | 100.0 | | | | |
| A.A. 750 | 0300 | 99.9 / 2731.93 | 167.73 ✓ | 200/05:41.76 (35.11) | 179.31/58.23 | 11.06 VDC 13.95°C |
| A.A. 770 | 0320 | 99.8 | | | | T=24.5°C pH=7.71 K=420 |
| A.A 790 | 0340 | 99.3 / 2733.32 | 169.12 ✓ | 200/05:42.24 (35.06) | 180.12/59.70 | |
| A.A. 810 | 0400 | 99.0 | | | | |
| A.A. 830 | 0420 | 99.0 / 2734.01 | 169.81 ✓ | 200/05:42.78 (35.01) | 180.97/58.83 | T=24.6°C pH=7.54 K=430 |
| A.A. 850 | 0440 | 98.9 | | 210/05:58.31 (35.17) | | 2,9909 gal @ 0429 |
| 870 | 0500 | 98.6 / 2734.93 | 170.73 ✓ | | 181.24/61.86 | Qavg STEP 3 = 35.00 gpm |
| A.A. 890 | 0520 | 98.5 | | 200/05:42.21 (35.07) | | T=24.5°C pH=7.74 K=420 |
| 910 | 0540 | 98.3 / 2735.63 | 171.43 ✓ | 200/05:42.05 (35.08) | 182.05/62.05 | |
| A.A. 930 | 0600 | 98.0 | | | | 11.04 VDC 13.81°C |
| 950 | 0620 | 97.8 / 2736.78 | 172.58 ✓ | 205/05:49.72 (35.17) | 182.86/59.61 | T=24.0°C pH=7.76 K=440 |
| A.A. 970 | 0640 | 98.1 | | 200/05:41.08 (35.18) | | |
| A.A. 990 | 0700 | 97.9 / 2736.55 | 172.35 ✓ | | 182.81/59.80 | T=24.8°C pH=7.78 K=440 |
| 1,010 | 0720 | 97.5 | | 200/05:43.21 (34.96) | | |
| A.A. 1,030 | 0740 | 98.3 / 2735.63 | 171.43 | 200/05:43.29 (34.96) | 182.52/60.35 | |
| A.A. 1,050 | 0800 | 98.0 / 2736.32 | 172.12 ✓ | | | T=25.9 pH=7.78 K=450 |
| A.A. 1,070 | 0820 | 98.3 / 2735.63 | 171.43 | 200/05:45.07 (34.78) | 180.88/58.14 | Q falling slightly Weather clear, sunny |

# WATER LEVEL RECORD SHEET

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PUMPING ~~OBSERVATION~~ WELL Canyon Mine Well

Measuring Point _____ Well Location: T._____, R._____, Sec._____

_____ft. above land surface. Well Coordinates: _____ft N.

Elevation of Measuring Point _____ft _____ft E.

above mean sea level. STATIC WATER LEVEL: 2564.2

| DATE / TIME AFTER PUMPING STARTED (MINUTES) (t) | HOUR HHMM | DEPTH TO WATER (FEET) PSI ~~HEAD~~ | / ~~WET~~ | DEPTH | DRAWDOWN (feet) | DISCHARGE gallons/MIN (gpm) | Pres. Trans PUMP HEAD Drawdown/°C | REMARKS (INCLUDE METHOD OF MEASUREMENT) |
|---|---|---|---|---|---|---|---|---|
| 9-10-87 A.A. 1090 | 0840 | 100.1 | / | 2731.47 | 167.27 | 200/05:49.19 (34.37) | 179.32/58.31 | (@ 0850) 00:44.19 / 45gal (33.14) |
| A.A. 1110 | 0900 | 98.9 | / | 2734.24 | 170.04 ✓ | | 179.43/61.00 | @ 0853 ↑ Q 50/01:25.85 (34.94) |
| A.A. 1130 | 0920 | 98.3 | | | | 200/05:42.26 (35.06) | | @ 0930 collect samples |
| A.A. 1150 | 0940 | 98.3 | / | 2735.63 | 171.43 ✓ | 100/02:51.34 (35.00) | 182.98/59.08 | Q steady |
| 1170 | 1000 | 97.9 | | | | | | T = 25.2°C pH = 7.67 K = 440 |
| A.A. 1190 | 1020 | 98.4 | / | 2735.40 | 171.20 ✓ | 200/05:44.13 (34.87) | 183.20/61.50 | |
| A.A. 1210 | 1040 | 98.8 | | | | 230/06:36.66 (34.79) | | difficult to stabilize airline. |
| ✓ 1230 | 1100 | 97.9 | / | 2736.55 | 172.35 ✓ | | 182.75/62.06 | T = 25.1°C pH = 7.84 K = 440 |
| 1260 | 1120 | 97.9 | | | | 300/08:36.57 (34.85) | | |
| A.A. 1270 | 1140 | 98.1 | / | 2736.09 | 171.89 | 200/05:44.70 (34.81) | 182.76/62.64 | |
| A.A. 1290 | 1200 | 98.0 | / | 2736.32 | 172.12 ✓ | | 182.79/62.34 | T = 25.4 pH = 7.85 K = 440 |
| A.A. 1310 | 1220 | 98.0 | | | | 200/05:45.16 (34.77) | | 11.10 VDC ~~22.28°C~~ 22.28°C @ 1210 tank @ 13.75 feet ~1 foot from overflow! |
| A.A. 1330 | 1240 | 98.1 | / | 2736.09 | 171.89 | 100/02:51.59 (34.97) | 183.17/62.41 | [@ 1229 totalizer 46,662] |
| A.A. 1350 | 1300 | 97.9 | / | 2736.55 | 172.35 ✓ | | 183.79/62.20 | @ 1250 outflow from tank opened to trailer tank — |
| 1370 | 1320 | 98.0 | | | | 100/02:52.95 (34.69) | | reading on tank ~ 14.45 feet @ 1300 fueled up. |
| A.A. 1390 | 1340 | 97.6 | / | 2737.24 | 173.04 | 250/07:11.20 (34.79) | 184.65/62.48 | |
| 1410 | 1400 | 97.5 | / | 2737.48 | 173.28 ✓ | | | |
| A.A. 1430 | 1420 | 97.1 | | | | 200/05:44.52 (34.83) | | |
| ✓ A.A. 1450 | 1440 | 97.0 | / | 2738.63 | 174.43 ✓ | 210/06:02.01 (34.81) | 185.18/62.29 | |
| A.A. 1470 | 1500 | 97.5 | / | 2737.48 | 173.28 | | | T = 25.1°C pH = 7.62 K = 450 |
| A.A. 1490 | 1520 | 98.0? | / | | | 210/06:01:41 (34.86) | | difficult to stabilize airline. |
| A.A. 1510 | 1540 | 97.0 | / | 2738.63 | 174.43 ✓ | 210/06:02.35 (34.77) | 185.63/64.92 | |
| A.A. 1530 | 1600 | 97.5 | | | | | | 11.13 VDC 28.19°C T = 24.7 pH = 7.68 K = 460 |
| A.A. 1550 | 1620 | 97.3 | | | | 250/07:09.84 (34.90) | | |
| 1570 | 1640 | 97.6 | / | 2737.24 | 173.04 ✓ | 210/06:01.07 (34.90) | 186.83/62.72 | |
| ✓ 1590 | 1700 | 97.0 | | | | | | T = 25.3 pH = 7.67 K = 440 |
| 1610 | 1720 | 96.9 | / | 2738.86 | 174.66 | 200/05:43.68 (34.92) | 185.55/77.74 | ~~@ 1729 totalizer = 57,144~~ |
| 1620 | 1730 | 97.0 | | | | | | PUMP OFF |
| | | | | | | totalizer = 57,144 | | |
| | | | | | | Qavg STEP 3 = 34.96 gpm | | |
| | | | | | | Qavg TEST = 33.90 gpm | | |

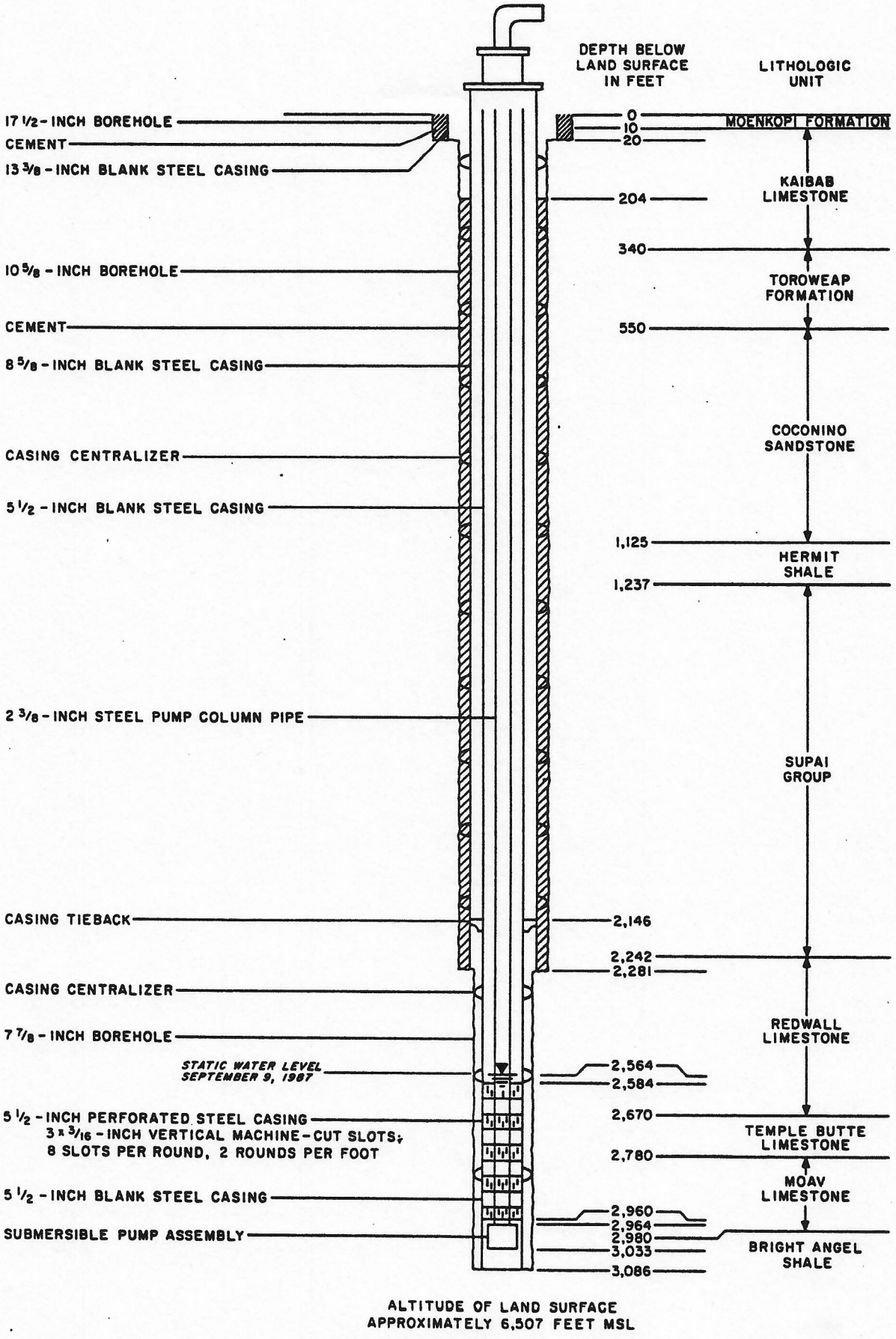


FIGURE 2. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION FOR CANYON MINE MONITOR/SUPPLY WELL (A-29-3) 20 bcd